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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,289	07/18/2003	Ki-Seop Kwon	51876P365	4125
8791	7590	08/12/2004	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD SEVENTH FLOOR LOS ANGELES, CA 90025-1030			TRAN, MICHAEL THANH	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,289

Applicant(s)

KWON, KI-SEOP

Examiner

Michael t Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 and 14 is/are allowed.
- 6) ☒ Claim(s) 1 and 12 is/are rejected.
- 7) ☒ Claim(s) 2-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.



Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. In response to the Communications dated July 18, 2003, claims 1-14 are active in this application.

Foreign Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a) (d), which papers have been placed of record in the file.

Claim Objections

3. Claims 2-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

It appears that the word "The", in the preamble of claim 1, should be changed to --A--.

Claim Rejections – 35 U.S.C. § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

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(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claim 1 is rejected under 35 U.S.C 102(b) as being anticipated by Hammick [U.S. Patent #5,764,572].

With respect to claim 1, Hammick disclose a semiconductor memory device, comprising: a first cell array including a plurality of unit cells [2 of figure 1] to be selected by an address signal; a sense amplifying unit [29 of figure 1] for sensing and amplifying voltage level of a bit line [BL of figure 1] connected to the plurality of unit cells; a switching unit [31 of figure 1] for connecting or disconnecting the sense amplifying unit to the bit line; and a sense amplifying connection unit [12 of figure 1] for controlling the switching unit for connecting or disconnecting the sense amplifying unit to the first cell array by increasing or decreasing an amount of current throughout the switching unit in response to the address signal. See column 4, lines 30-55; and column 7, lines 30-50. In the cited sections, Hammick indicated that the sense amplifying unit is connected or disconnected to the bit line via the switching unit. Further, Hammick also indicated that the switching unit is operating in response to an address signal.

Claim Rejections – 35 U.S.C. § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

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obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 12 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Hammick [U.S. Patent # 5,764,572] in view of Au et al. [U.S. Patent # 6,008,689].

With respect to claim 1, Hammick disclose a semiconductor memory device, comprising: a first cell array including a plurality of unit cells [2 of figure 1] to be selected by an address signal; a sense amplifying unit [29 of figure 1] for sensing and amplifying voltage level of a bit line [BL of figure 1] connected to the plurality of unit cells; a switching unit [31 of figure 1] for connecting or disconnecting the sense amplifying unit to the bit line; and a sense amplifying connection unit [12 of figure 1] for controlling the switching unit for connecting or disconnecting the sense amplifying unit to the first cell array by increasing or decreasing an amount of current throughout the switching unit in response to the address signal. See column 4, lines 30-55; and column 7, lines 30-50. In the cited sections, Hammick indicated that the sense amplifying unit is connected or disconnected to the bit line via the switching unit. Further, Hammick also indicated that the switching unit is operating in response to an address signal.

Hammick discloses all of the above mentioned but is silent about the fact that the switching unit includes at least one MOS transistor. Au et al. show that it is well known to incorporate a MOS switching unit as a switching element within a memory device

because of its capability to enable high speed and its small size. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Hammick memory circuit element to include a MOS switching unit as taught by Au et al., since Au et al. show that it is well known and desirable in the art to provide a memory circuit element with a MOS switching unit in order to enhance the operational performance of a memory device. See column 1, lines 15-40.

Allowable Subject Matter

8. Claims 13 and 14 are allowable over the prior art of records.

9. The following is an Examiner's statement of reasons for the indication of allowable subject matter: the prior art of records does not show (in addition to the other elements in the claim) the following:

- ❖ A sense amplifying reconnect control block for controlling the second sense amplifying connect block for flowing the second amount of the current throughout the switching unit; and controlling the first amount of the sense amplifying connect block for flowing the first amount of the current throughout the switching unit, after the sense amplifying unit finishes to amplify voltage level of the bit line.

Conclusion

10. When responding to the Office action, Applicants are advised to provide the Examiner with line and page numbers of the application and/or references cited

to assist the Examiner in the prosecution of this case.

11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Michael T. Tran whose telephone number is (571) 272-1795. The Examiner can normally be reached on Monday-Thursday from 7:30-6:00 P.M.

12. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1650.



Michael T. Tran
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August 9, 2004